

CLAIMS

We claim:

1. A dental evacuation tool for being placed in fluid communication with a dental vacuum, the tool comprising:
 - a suction head including a mirror surface, first and second upward-facing intake orifices adjacent the mirror surface, and an exit fluid pathway that is in fluid communication with the first and second upward-facing intake orifices; and
 - an elongated tubular handle including a first end adapted to be in fluid communication with the vacuum and a second end in fluid communication with the exit fluid pathway,
 - wherein the first and second upward-facing intake orifices are positioned generally opposite each other about the mirror surface and are generally centered about a line that is generally perpendicular to the longitudinal axis of the handle.
2. The tool of claim 1 wherein the first and second upward-facing intake orifices open in generally the same direction faced by the mirror.
3. The tool of claim 1 wherein the suction head further includes a forward-facing intake orifice in fluid communication with the exit fluid pathway and positioned on the suction head generally opposite the exit fluid pathway.
4. The tool of claim 3 wherein the forward-facing intake orifice opens in a direction that is generally perpendicular to the mirror surface.
5. The tool of claim 1 wherein the suction head further includes a sidewall, a backside that is generally opposite the mirror surface, and at least two forward-facing intake orifices located in the sidewall generally opposite the exit fluid pathway.

6. The tool of claim 5 wherein the backside and the sidewall form an obtuse angle.

7. A method of making a dental evacuation tool for being placed in fluid communication with a dental vacuum, the method comprising:

providing a suction head including a mirror surface and an exit fluid pathway;

providing an elongated tubular handle including a first end in fluid communication with the exit fluid pathway and a second end adapted to be in fluid communication with the vacuum,

providing first and second upward-facing intake orifices on the suction head adjacent to the mirror surface such that the upward-facing intake orifices are in fluid communication with the exit fluid pathway, and the first and second upward-facing intake orifices are positioned generally opposite each other about the mirror surface and are generally centered about a line that is generally perpendicular to the longitudinal axis of the handle.

8. The method of claim 7 wherein the first and second upward-facing intake orifices open in generally the same direction faced by the mirror.

9. The method of claim 7 further comprising providing a forward-facing intake orifice on the suction head such that the forward-facing intake orifice is in fluid communication with the exit fluid pathway and positioned on the suction head generally opposite the exit fluid pathway.

10. The method of claim 9 wherein the forward-facing intake orifice opens in a direction that is generally perpendicular to the mirror surface.

11. The method of claim 7 further comprising providing on the suction head a sidewall, a backside that is generally opposite the mirror surface, and at least two forward-facing intake orifices located in the sidewall generally opposite the exit fluid pathway.

12. The method of claim 11 wherein the backside and the sidewall form an obtuse angle.

13. A dental evacuation tool for being placed in fluid communication with a dental vacuum, the tool comprising:

a suction head including a mirror surface, a first intake orifice adjacent the edge of the mirror surface and having a center point, a second intake orifice adjacent the edge of the mirror surface and having a center point, and an exit fluid pathway that is in fluid communication with the first and second intake orifices; and

an elongated tubular handle including a first end adapted to be in fluid communication with the vacuum and a second end in fluid communication with the exit fluid pathway,

wherein the center point of the first intake orifice is radially offset by approximately 45 to approximately 135 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway,

wherein the center point of the second intake orifice is radially offset by approximately 45 to approximately 135 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway,

wherein the first and second intake orifices radially extend by approximately one to approximately 90 degrees away from each side of their respective center points,

wherein the first and second intake orifices open in a direction that is approximately zero to approximately 45 degrees from being normal to the mirror surface.

14. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 80 to approximately 100 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 80 to approximately 100 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 5 to approximately 60 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 25 degrees from being normal to the mirror surface.

15. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 80 to approximately 100 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 80 to approximately 100 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 5 to approximately 30 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 25 degrees from being normal to the mirror surface.

16. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 80 to approximately 100 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 80 to approximately 100 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 10 to approximately 15 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 25 degrees from being normal to the mirror surface.

17. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 90 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 90 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 5 to approximately 60 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 25 degrees from being normal to the mirror surface.

18. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 90 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 90 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 5 to approximately 30 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 25 degrees from being normal to the mirror surface.

19. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 90 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 90 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 10 to approximately 15 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 25 degrees from being normal to the mirror surface.

20. The tool of claim 13 wherein the center point of the first intake orifice is radially offset by approximately 90 degrees in a first direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the center point of the second intake orifice is radially offset by approximately 90 degrees in a second direction about the edge of the mirror surface from the center of the exit fluid pathway, wherein the first and second intake orifices radially extend by approximately 5 to approximately 30 degrees away from each side of their respective center points, wherein the first and second intake orifices open in a direction that is approximately zero to approximately 10 degrees from being normal to the mirror surface.

21. A method of using a dental evacuation mirror comprising a suction head including a mirror surface, a backside opposite the mirror surface, and an intake orifice adjacent to the mirror surface, the method comprising:

placing the suction head in a first position within the mouth of a person, wherein the first position is between a cheek and a buccal surface of a tooth, and wherein the mirror surface is adjacent to the buccal surface and the backside abuts against and retracts the cheek; and

while maintaining the suction head in the first position, evacuating fluids and/or debris through the intake orifice without suctioning the cheek.